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Three New Species and Some Synonymic Notes on the Arctiidae from Japan, Taiwan and The Philippines

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In writing this paper I am much indebted to Mr. A. WATSON, British Museum (Natural History), London, for his advice and for his kind offices which enabled my examination of the rich collection of the Arctiidae under his curation. I wish to thank Dr. T. KUMATA, Hokkaido University, Sapporo, and Dr. R. GAEDIKE, Abt. Taxonomie der Insekten, Institut für Pflanzenschutzforschung der AdL. Bereich, Eberswalde, who provided me facilities in examining the type-series under their cares. I am also indebted to Dr. D. STÜNING, Museum Alexander Koenig, Bonn, for the loan of paratypes of *Lithosia chekiangica* DANIEL. I am grateful to the following friends for their gifts of specimens : S. AZUMA, B-S. CHANG, K. DEGUCHI, A. KAWABE, S. KINOSHITA, Y. KISHIDA, T. MASUI, I. OHTSUKA, M. OWADA, M. SAIKAWA, R. SATO and S. SUGI.

All the specimens including the type-series of the new taxa recorded in this paper are preserved in my collection, excepting those specified.

Descriptions of new species

Subfamily Arctiinae

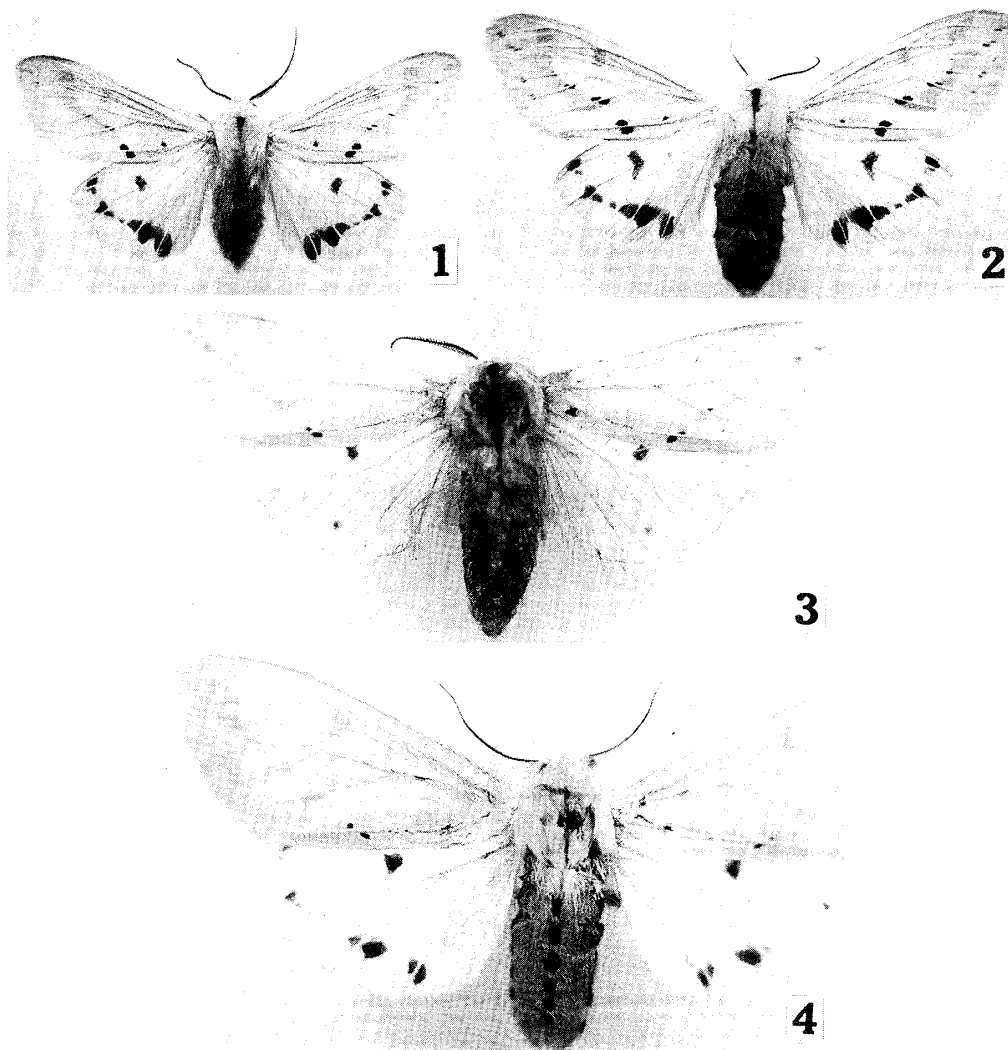
Spilarctia graminivora sp. nov.

(Figs. 1, 2, 5, 6)

Spilosoma bisecta : INOUE, 1982, *Moths of Japan* 1 : 651 ; 2 : 339, pl. 228 : 4, nec LEECH.

Similar to *Spilarctia bisecta* (LEECH) from continental China, but forewing with ground colour less whitish, the interrupted line of black spots from apex to middle of hindmargin more developed, less straightish, being incurved at CuA₂, subterminal row of minute dots almost always developed at anterior half, a small spot on 1A+2A placed at midway between base and termen often vanished in ♀. Hindwing with discocellular spot and subterminal row of blackish marks heavy, the former usually angular along discocellular veins, the latter sometimes interrupted between R_s and M₁, sometimes hair along hindmarginal area pinkish.

Under surface more whitish, both wings with discocellular spots and subterminal bands much heavier than on above, forewing with rosy flush in and around discocellular cell, but often this colouring is extremely weak. Dorsal surface of thorax with



Figs. 1–4. 1 : *Spilarctia graminivora* sp. nov., holotype, ♂. 2 : *Ditto*, paratype, ♀.
3 : *Spilarctia bisecta* (LEECH), lectotype, ♂ [Nagasaki]. 4 : *Ditto*, ♀, Moupin.

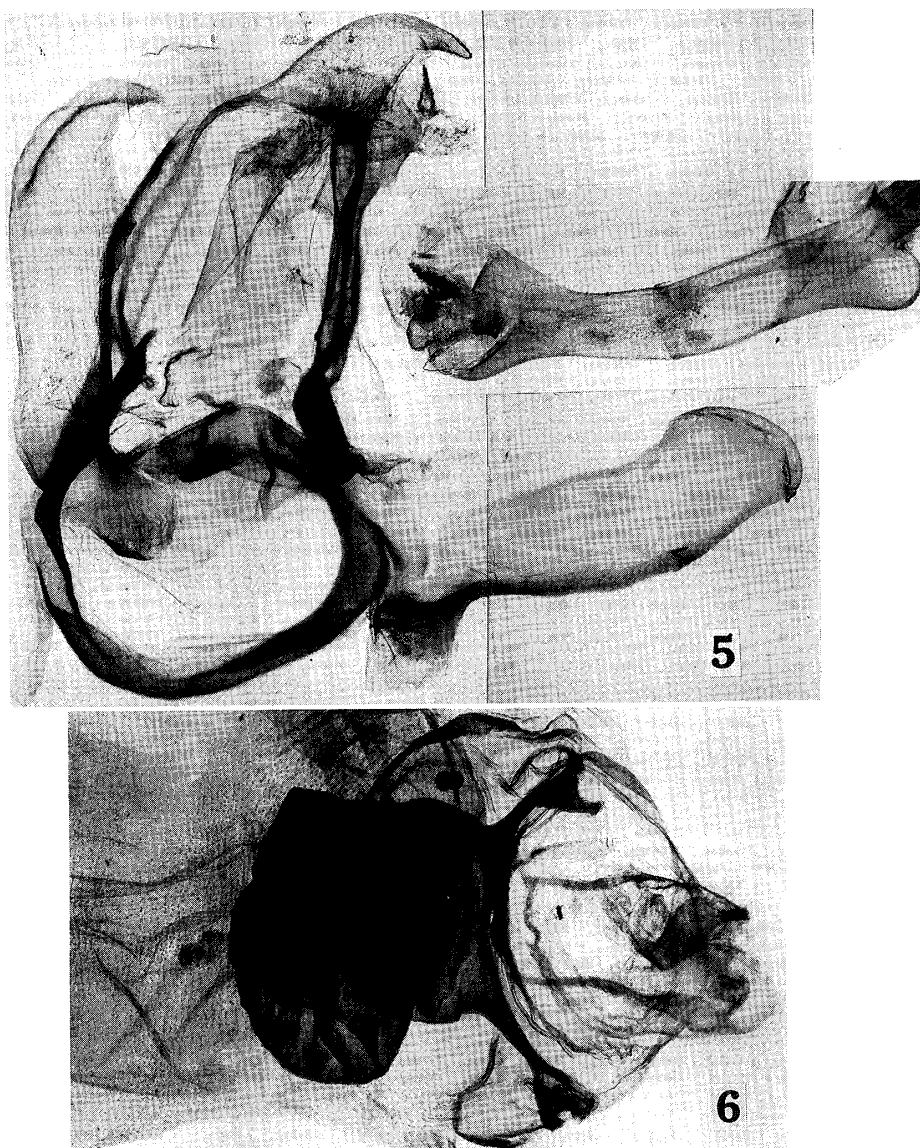
black transverse line developed as in *bisecta*. Length of forewing, ♂ 18–20, ♀ 20–24 mm.

Male genitalia. Valva an oblong plate, distal margin gently rounded, a small process at ventral edge, cornuti two masses of minute spines and a stick-like sclerite.

Holotype. ♂, Takamatsu City, Tokushima Pref., 8. v. 1981 (T. MASUI). Paratypes. Data as holotype, 2♂; type-locality, 2. v. 1980, 1♂, 1♀; *ditto*, 8. v. 1981, 1♀; *ditto*, 2–9. v. 1983, 3♂, 2♀ (T. MASUI). Settsu City, Osaka Pref., 22. iv. 1974, 1♂ (S. KINOSHITA). Kengunmachi, Kumamoto City, Kumamoto Pref., 16. iv. 1987, 3♂ (I. OTSUKA). A pair of paratypes in coll. British Museum (N.H.).

Distribution. Japan (SW. Honshu, N. Shikoku, N. & C. Kyushu).

Related to *Spilarctia subtestacea* (ROTHSCHILD) from Taiwan, but wings less brownish, abdomen not orange but scarlet, postmedian row of black dots on forewing and subterminal band of hindwing usually heavier. The tooth-like process from



Figs. 5–6. 5: *Spilarctia graminivora* sp. nov, ♂ genitalia (H. I. Slide 10594). 6: *Ditto*, ♀ genitalia (10595).

ventral margin of valva much weaker.

More or less similar to *Spilarctia seriatopunctata* (MOTSCHULSKY), but antennal pectination in ♂ longer, the black streak on dorsal surface of thorax developed, lacking black streak at costa of forewing from base to one-third; dorso-apical protuberance and ventral projection of valva developed in *seriatopunctata* are absent or vestigial.

The immature stages of this new species were described by TERAMOTO, 1984, *Japan Heterocerists' J.* **127**: 17–22, under the name of *Spilarctia bisecta*, based on specimens collected and bred in Osaka Prefecture. He compared the larva of this species with *S. seriatopunctata*. The food plants in captivity are *Morus*, *Ficus* and

various species of grasses, such as *Trifolium*, *Plantago*, *Artemisia*.

Habitats of this species seem to be confined to urbanized lowland, where vegetation is unsettled by human intervention. The extant information before me shows that the present new species inhabits southwestern part of the mainland of Japan.

Although LEECH, [1889], *Proc. zool. Soc. Lond.* 1888 : 618–619, pl. 31 : 3, founded *Spilosoma bisecta* on two males from Hong Kong and Nagasaki, the latter specimen might have been secured in China. HAMPSON, 1901, *Cat. Lepid. Phalaenae Br. Mus.* 3 : 290, designated the lectotype as “Nagasaki (LEECH) 1♂ type *bisecta*” under the collective name *Diacrisia obliqua*. ROTHSCCHILD, 1910, *Novit. zool.* 17 : 135, recorded *Diacrisia obliqua bisecta* from several places of China. DANIEL, 1943, *Mitt. Münch. ent. Ges.* 33 : 690–692, recorded *S. bisecta* from various places of China and showed photos of many specimens. His identification of majority of specimens seems to be sound. The valva of *bisecta* shown by him (fig. 7) has a large canine-like process from ventral margin near middle, which in this new species is underdeveloped.

Subfamily Lithosiinae

Asuridia rubripennis sp. nov.

(Figs. 7–9)

Mitochrista (Asuridia) carnipicta : MATSUMURA, 1931, 6000 *illustr. Insects Japan-Empire* : 969, fig., nec BUTLER.

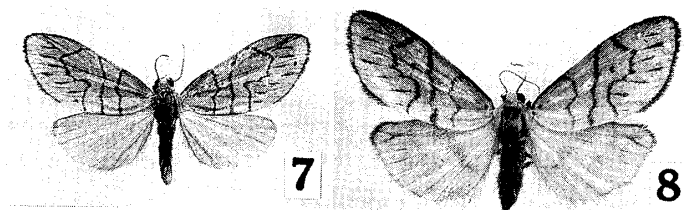
Asuridia carnipicta (part.) : INOUE, 1978, *Japan Heterocerists' J.* 97 : 605, fig. 2, nec BUTLER.

Closely related to *A. carnipicta* (BUTLER) from China and Japan (Island of Tsushima), but transverse lines of forewing usually thicker, and median fascia more straightish. The lines and fasciae of upper surface are more strongly reproduced on under surface than in *carnipicta*. Length of forewing, spring brood (1♂) 12 mm, summer brood 10–11 mm.

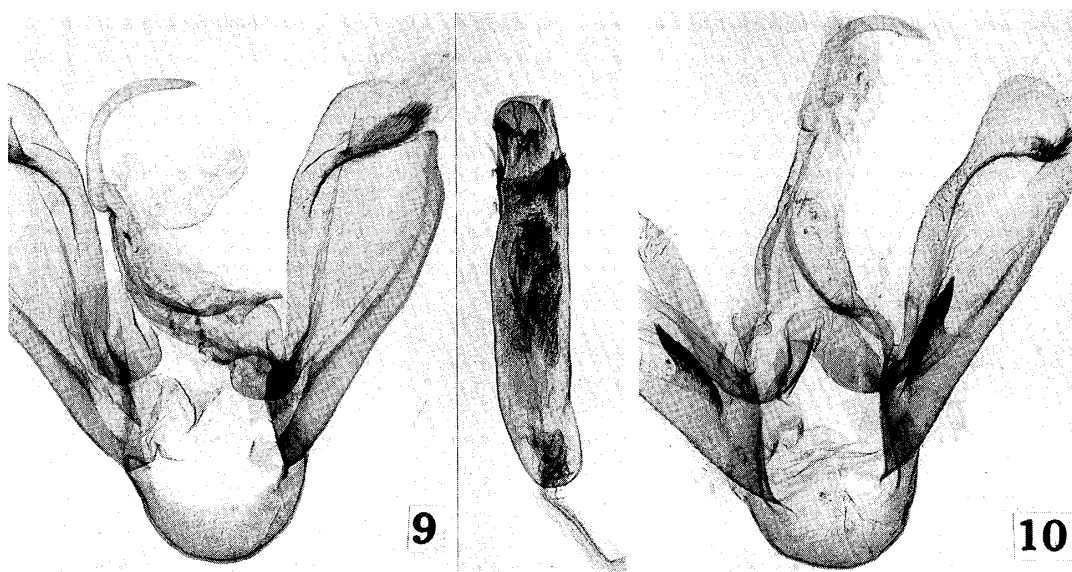
Male genitalia. Uncus slenderer, valva ampler distally than in *carnipicta*, downcurved spinulose process of costa longer, a strong process from near base of sacculus developed in *carnipicta* is vestigial.

♀ unknown.

Holotype. ♂, Chihuan, Taoyuan Hsien, 23. iv. 1983 (B.S. CHANG). Paratypes.



Figs. 7–8. 7 : *Asuridia rubripennis* sp. nov., holotype, ♂. 8 : *Ditto*, paratype, ♂.



Figs. 9-10. 9 : *Asuridia rubripennis* sp. nov., ♂ genitalia (10740). 10 : *Asuridia carnipicta* (BUTLER), ♂ genitalia (10738), aedeagus omitted.

Fenchihu, 1600 m, Chiai Hsien, 12-13. vii. 1964, 3♂ (H. INOUE) ; *ditto*, 21. viii. 1968, 1 ♂ (M. SAIKAWA) ; Wenshan Spa, 580 m, Hualien Hsien, 4-5. viii. 1983, 1♂ (A. KAWABE).

Distribution. Taiwan.

MATSUMURA, 1931, illustrated a Taiwanese female and groundlessly recorded Japan (Honshu and Kyushu). I, 1978, recorded *A. carnipicta* from the island of Tsushima for the first time and at the same time dubitatively associated with it four males collected in Taiwan.

***Miltochrista expressa* sp. nov.**

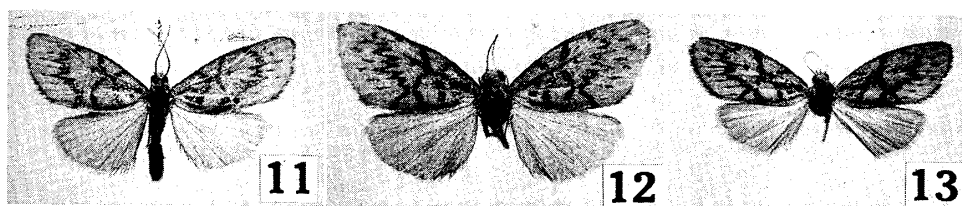
(Figs. 11-15)

Miltochrista aberrans okinawana (part.): INOUE, 1980, *Tyô Ga* **30**: 165 ; *id.*, 1982, *Moths of Japan* **1**: 648, *nec* MATSUMURA.

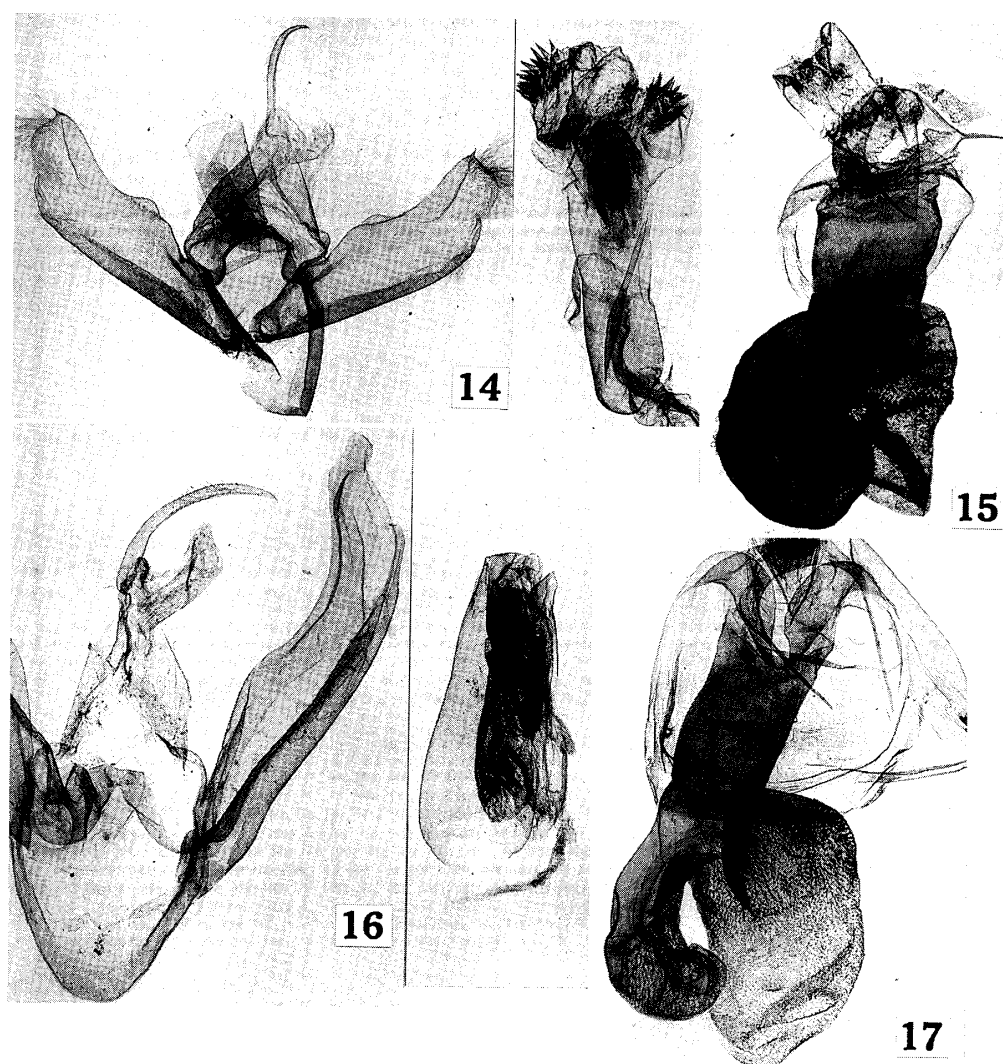
Similar to *M. aberrans okinawana* MATSUMURA, but usually transverse lines on forewing thicker, discocellular black dot distinct as in the nominate subspecies of *aberrans*, while in *okinawana* the dot is absent. Hindwing more thickly pinkish than in *aberrans*. Length of forewing, ♂ ♀ 8-10 mm. Spring brood is usually larger than summer and autumn broods.

Male genitalia. Costa more limitedly and strongly protuberant dorsally at middle than in *aberrans*, apex ending in a minute thorn, while in *aberrans* costal projection is strong, terminal process of harpe slenderer than in the typical *aberrans*.

Female genitalia. Sclerotized ductus bursae much shorter, lamella antevaginalis much less strongly produced caudally at each side.



Figs. 11–13. 11 : *Miltochrista expressa* sp. nov., holotype, ♂. 12 : *Ditto*, paratype, ♂.
13 : *Ditto*, paratype, ♀.



Figs. 14–17. 14 : *Miltochrista expressa* sp. nov., ♂ genitalia (11670). 15 : *Ditto*, ♀ genitalia (11669). 16 : *Miltochrista aberrans aberrans* BUTLER, ♂ genitalia (6812).
17 : *Ditto*, ♀ genitalia (6813).

Holotype. ♂, Bannadake, Ishigakijima Is., 21. iii. 1981 (K. DEGUCHI). Paratypes. Ishigakijima Is. : type-locality, 27–28. iii. 1974, 1♂ (T. NAITO), ex R. SATO. Iriomotejima Is. : Mt. Ushiku, 3–7. x. 1963, 1♀ (G.A. SAMUELSON) ; Funaura, 24. viii. 1976, 1♂ (S. AZUMA) ; Daini-yamagoya, 26. iii. 1981, 1♂ (K. DEGUCHI).

Distribution. Japan (Ishigaki & Iriomote Islands, Ryukyus).

The range of distribution of *M. aberrans* in Japan is from northern Hokkaido to as far south as Okinawa Island. On Sakishima Islands only this new species is found, the two species being allopatric.

Synonymic Notes

Subfamily Arctiinae

Spilarctia subtestacea (ROTHSCHILD), **comb. nov.**

(Figs. 18, 19)

Diacrisia subtestacea ROTHCHILD, 1910, *Novit. zool.* **17** : 137 ; *id.*, 1914, in SEITZ, *Macrolepid. World* **10** : 244, pl. 21 : g ; MATSUMURA, 1930, *Insecta matsum.* **5** : 69 ; *id.*, 1931, *6000 illust. Insects Japan-Empire* : 961, fig.

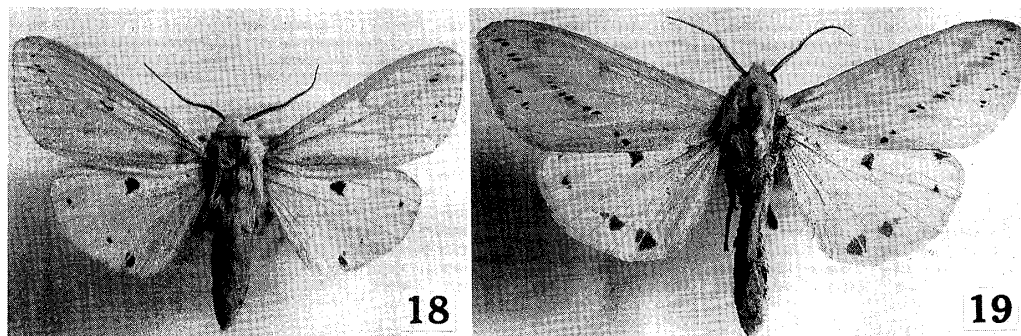
Spilosoma obliqua (part.) : HAMPSON, 1920, *Cat. Lepid. Phalaenae Br. Mus. Suppl.* **2** : 390, *nec* WALKER.

Diacrisia obliqua var. *chosokeia* STRAND, 1922, *Ent Z. Frankf. a. M.* **36** : 1. Syn. nov.

Spilarctia obliqua ssp. ? *subtestacea* : DANIEL, 1943, *Mitt. münch. ent. Ges.* **3** : 684.

Spilarctia bisecta ssp. *chosokeia* : DANIEL, 1943, *op. cit.* : 690.

The type specimens of *subtestacea* in London and *chosokeia* in Eberswalde, both described from Taiwan, were examined and the synonymy was confirmed. *S. obliqua* (WALKER) is not distributed in Taiwan ; cf. THOMAS, 1983, *Nachr. ent. Ver. Apollo, Frankfurt, N. F.* **4** : 85–98, for the correct status and distribution of *obliqua*.



Figs. 18–19. 18 : *Spilarctia subtestacea* (ROTHCHILD), holotype, ♂. 19 : *Ditto*, paratype, ♂, of *Diacrisia obliqua* var. *chosokeia* STRAND.

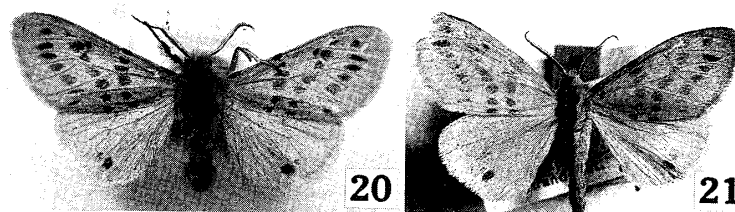
Spilarctia punctilinea (WILEMAN), **comb. nov.**

(Figs. 20, 21)

Diacrisia punctilinea Wileman, 1910, *Entomologist* **43** : 245 ; ROTHSCHILD, 1914, in SEITZ, *Macrolepid.**World* **10** : 241 ; MATSUMURA, 1930, *Insecta matsum.* **5** : 43.*Diacrisia alikangensis* STRAND, 1915, *Ent. Mitt.* **4** : 15. Syn. nov.*Spilosoma punctilinea* : HAMPSON, 1920, *Cat. Lepid. Phalaenae Br. Mus. Suppl.* **2** : 398, pl. 60 : 10.

MATSUMURA, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.* **19** : 57 ; id., 1930, *Insecta matsum.* **5** : 66, erroneously considered *D. alikangensis* a junior synonym of *D. moltrechti* MIYAKE, because he misidentified the present species as *D. moltrechti* (Cf. 1931, 6000 *illustr. Insects Japan-Empire*: 957, fig.). HAMPSON's figure of *punctilinea* and *moltrechti* depicted the colour and maculation of the two species very well, but he misinterpreted the type-locality of the latter as Japan. I examined the holotypes of *punctilinea* (♂) and *alikangensis* (♂) and grasped the synonymy.

The facies and the genitalia of both sexes show this Taiwanese species to be a close relative of *S. flammeola* (MOORE) from Japan and China.



Figs. 20–21. 20 : *Spilarctia punctilinea* (WILEMAN), holotype, ♂. 21 : *Ditto*, holotype, ♂, of *Diacrisia alikangensis* Strand.

Spilarctia moltrechti (MIYAKE), **comb. nov.***Diacrisia moltrechti* MIYAKE, 1909, *Bull. Coll. Agric. Tokyo Imp. Univ.* **8** : 166, fig. 4.*Spilosoma moltrechti* : HAMPSON, 1920, *Cat. Lepid. Phalaenae Br. Mus. Suppl.* **2** : 398, pl. 60 : 9.*Diacrisia ukona* MATSUMURA, 1930, *Insecta matsum.* **5** : 35, 70 ; id., 6000 *illustr. Insects Japan-Empire* : 961, fig. Syn. nov.

Because MATSUMURA misidentified *Diacrisia moltrechti* as *punctilinea*, he described this species as new based on a male from southern part of Taiwan. The type specimen of *moltrechti* is missing, probably it does not exist, but the original description and the accompanying figure are satisfactory for identification. DANIEL, 1943, *Mitt. münch. ent. Ges.* **33** : 720, sunk *moltrechti* into *S. flavens* (MOORE) from Assam, but it was apparently erroneous.

Amsactoides solitarius (WILEMAN), **comb. nov.**

(Figs. 22, 23)

Diacrisia solitaria WILEMAN, 1910, *Entomologist* **43** : 245 (♀); ROTHSCILD, 1914, in SEITZ, *Macrolepid. World* **10** : 249, pl. 19 : f (♀); HAMPSON, 1920, *Cat. Lepid.. Phalaenae Br. Mus. Suppl.* **2** : 401, pl. 60 : 14 (♀); MATSUMURA, 1930, *Insecta matsum.* **5** : 69; *id.*, 1931, *6000 illust. Insects Japan-Empire* : 960, fig. (♀).

Cretonotus formosae STRAND, 1915, *Ent. Mitt.* **4** : 13 (♂). Syn. nov.

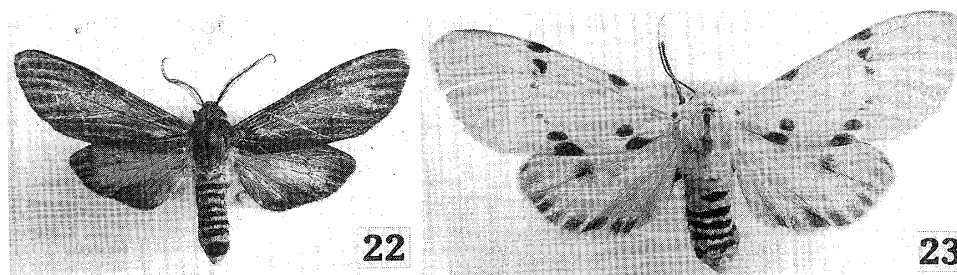
Spilosoma solitaria : WILEMAN, 1920, *Entomologist* **53** : 241 (♂).

Amsactoides formosae : MATSUMURA, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.* **19** : 52 (♂); *id.*, 1930, *Insecta matsum.* **5** : 70; *id.*, 1931, *6000 illust. Insects Japan-Empire* : 945, fig. (♂).

Spilarctia solitaria : FANG, 1982, in *Icon. Heteroc. Sinicorum* **2** : 223, pl. 71 : 1643 (♀).

WILEMAN described his new species from a single female collected at Kanshirei, and STRAND from five males, type-locality Kansu, the others from Polisha, Kosempo and Alikang. WILEMAN, 1920, described the male of *solitaria* secured at Koshun, which had been sent by T. SHIRAKI for identification. The association of the male and female was only known by WILEMAN, but the male observed by him was sent back to SHIRAKI, former Imperial University of Taiwan. MATSUMURA, 1931, illustrated a male and a female under different genera.

Fortunately I collected a mating couple of this strikingly dimorphic species in New Territory, Kawloon, Hong Kong, on 25 July 1964. FANG, 1982, recorded Fukien, showing a female, the first discovery of this species from continental China.



Figs. 22–23. 22 : *Amsactoides solitarius* (WILEMAN), holotype, ♂, of *Cretonotus formosae* STRAND. 23 : *Ditto*, holotype, ♀.

Cretonotos wilemani ROTHSCILD

(Fig. 24)

Cretonotos wilemani ROTHSCILD, 1933, *Ann. Mag. nat. Hist.* (10) **11** : 183.

Cretonotos philippinensis NAKAMURA, 1976, *Tyô Ga* **27** : 113, figs 4, 6. Syn. nov.

NAKAMURA failed to notice ROTHSCILD's species from Luzon and Mindanao, Philippines, and he described the same taxon from the same islands. The first record

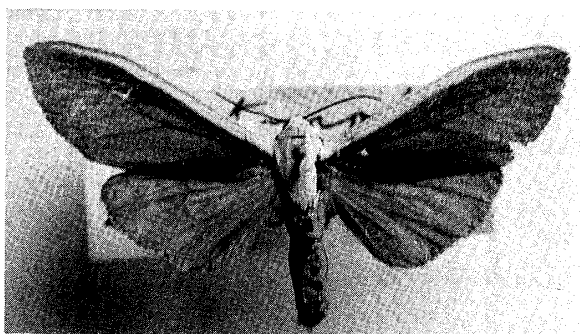


Fig. 24. *Creatonotos wilemani* ROTHSCCHILD, holotype, ♀.

of this species from the Philippines is SEMPER, 1899, *Ins. Reis. Archipel. Philipp.* 6 : 487, pl. 57 : 5, as *Phissama transiens* WALKER.

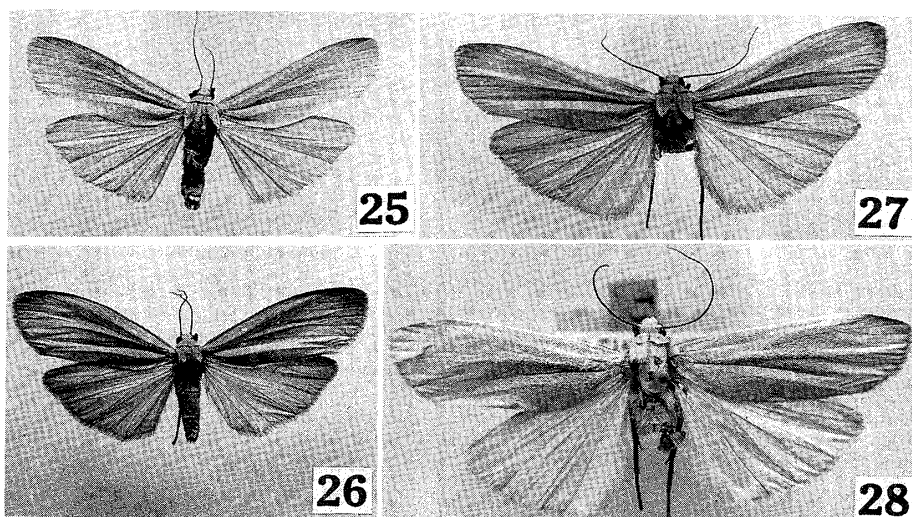
Subfamily Lithosiinae

Eilema magnata (MATSUMURA), **comb. nov.**

(Figs. 25 – 27, 29, 30)

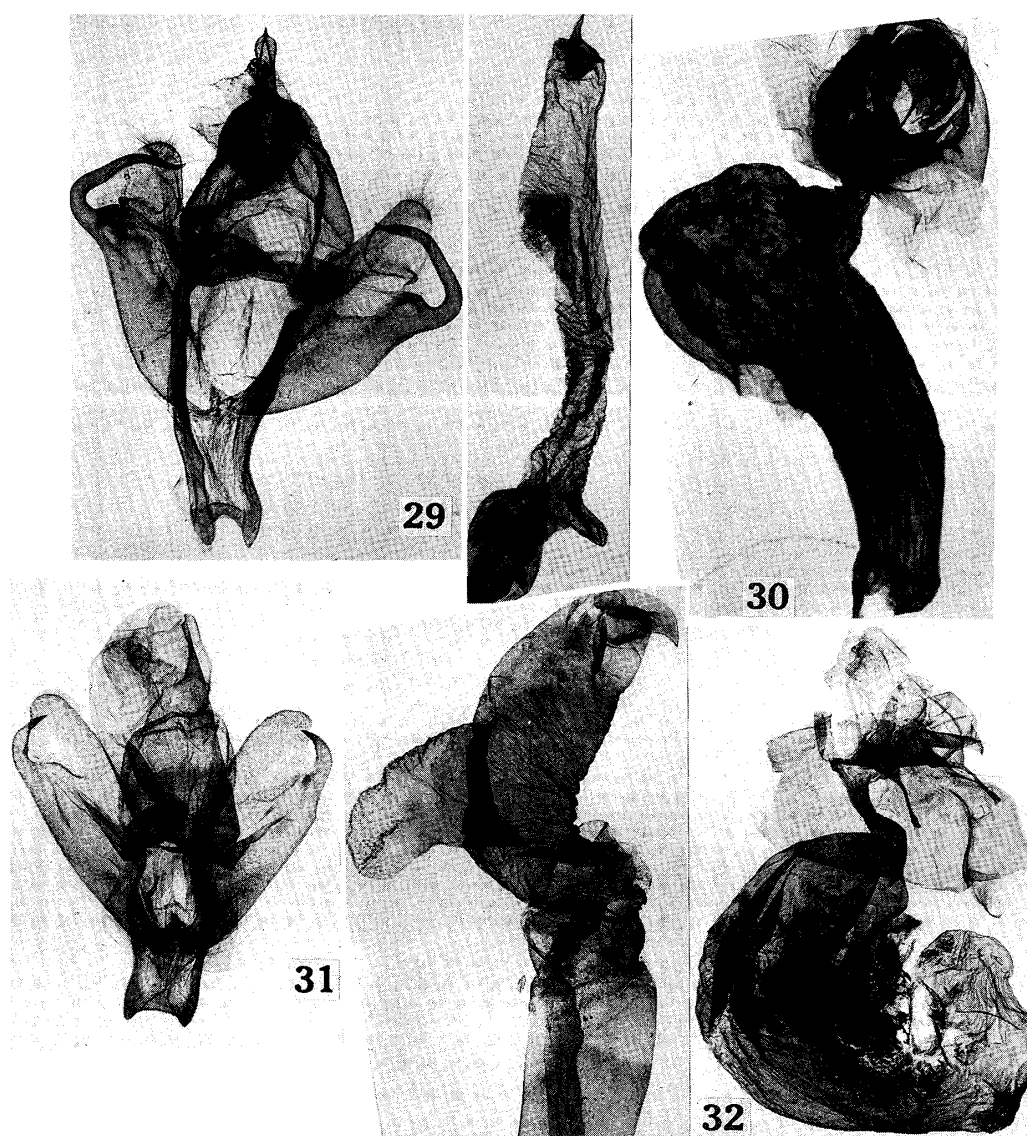
Lithosia magnata MATSUMURA, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.* 19 : 63, pl. 4 : 37 (♀); *id.*, 1930, *Insecta matsum.* 5 : 78 ; *id.*, 1931, *6000 illust. Insects Japan-Empire* : 965, fig.

Lithosia chekiangica elisabethae ROESLER, 1967, *Z. wien. Ent. Ges.* 52 : 69, figs. 5, 7 ; pl. 10 : 5, 6. Syn. nov.



Figs. 25 – 28. 25 : *Eilema magnata* (MATSUMURA), ♂, summer brood. 26 : *Ditto*, ♀, summer brood. 27 : *Ditto*, ♂, spring brood. 28 : *Eilema chekiangica* (DANIEL), lectotype, ♂.

This is the largest species of *Eilema* found in Taiwan. The lectotype, here designated, labelled : Mokanshan bei Hangchow, Ende VI (H. HÖNE), of *Lithosia chekiangica* DANIEL, 1954, *Bonn. zool. Beitr.* 5: 95, fig. 51 ; pl. 1 : 61 ; pl. 3 : 62, 63, is conspecific with *E. suffusa* (LEECH) from W. China (syn. nov.). The "paratype", ♂, of the same taxon from Kuatun, Fukien, dissected by ROESLER (Prep. Nr. 4091) is identical with *magnata*, not with *chekiangica*. *L. ch. elisabethae* from Taiwan is a junior synonym of *magnata*, which is distinguished from *suffusa* by much longer harpal process of valva.



Figs. 29–32. 29 : *Eilema magnata* (MATSUMURA), ♂ genitalia (11235). 30 : *Ditto*, ♀ genitalia (11236). 31 : *Eilema chekiangica* (DANIEL), ♂ genitalia (Mus. A. Koenig). 32 : *Ditto*, ♀ genitalia (Mus. A. Koenig).

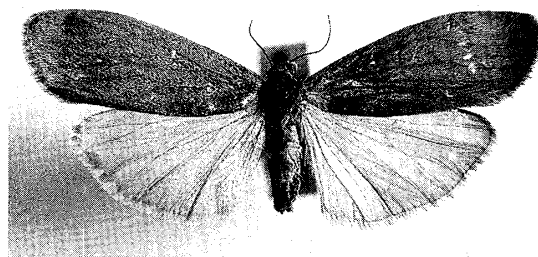


Fig. 33. *Eilema pulverea* (WILEMAN), lectotype, ♀, of *Eilema schistaceola* STRAND.

Eilema pulverea (WILEMAN)

(Fig. 33)

Eilema pulverea WILEMAN, 1910, *Entomologist* **43** : 178 ; HAMPSON, 1914, *Cat. Lepid. Phallaenae Br. Mus. Suppl.* **1** : 502, pl. 27 : 22.

Eilema schistaceola STRAND, [1917], *Arch. Naturgesch.* **82A** (3) : 113 ; MATSUMURA, 1930, *Insecta matsum.* **5** : 76. Syn. nov.

Eilema pulverea MATSUMURA, 1930, *Insecta matsum.* **5** : 76.

Lithosia pulverea: DRAUDT, 1914, in SEITZ, *Macrolepid. World* **10** : 210.

WILEMAN founded his new species by a single male from Rantaizan. Although STRAND recorded 2♂ from Suisharyo, one of them is a female, which I will here select as the lectotype, labelled : Suisharyo, ii. 1910, H. SAUTER.

Eilema antica (WALKER)

(Figs. 34, 35)

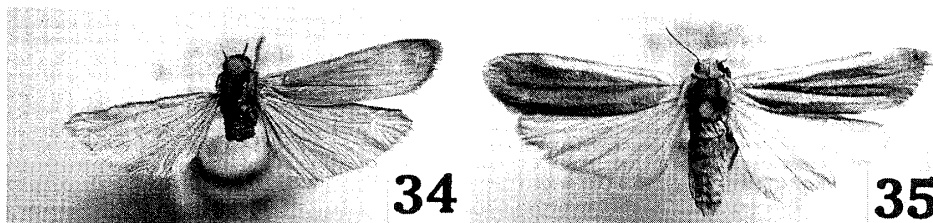
Lithosia antica WALKER, 1854, *List Specimens lepid. Insects Colln Br. Mus.* **2** : 505.

Lithosia brevipennis WALKER, 1854, *op. cit.* : 509.

Eilema kosemponensis STRAND, [1917], *Arch. Naturgesch.* **82A** (3) : 113. Syn. nov.

Lithosia horishanella MATSUMURA, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.* **19** : 64, pl. 5 : 7 (♀); *id.*, 1930, *Insecta matsum.* **5** : 78 ; *id.*, 1931, *6000 illust. Insects Japan-Empire* : 964, fig. Syn. nov.

STRAND founded *kosemponensis* on a single male and Matsumura described his new species based on a single female, not a male as stated by him, from Taiwan. The



Figs. 34 – 35. 34 : *Eilema antica* (WALKER), holotype, ♂, of *Lithosia brevipennis* WALKER.
35 : *Ditto*, holotype, ♀.

synonymy of *antica* (♀) and *brevipennis* (♂), both from Sri Lanka, was already stated by me, 1982, *Moths of Japan* 2 : 335, after having examined the holotypes of the two taxa at British Museum (N.H.).

Agylla collitoides subpurpurea MATSUMURA, **stat. nov.**

Agylla subpurpurea MATSUMURA, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.* 19 : 63, pl. 4 : 38 ; id., 1930, *Insecta matsum.* 5 : 77 ; id., 1931, *6000 illust. Insects Japan-Empire* : 944, fig.
Agylla collitoides taiwana : INOUE, 1982, *Moths of Japan* 1 : 643, *nec* WILEMAN.

The Taiwanese representative of this species is separated from the nominate subspecies by paler costal streak of forewing and paler ground colour of upper and under surface of wings.

Eilema arizana (WILEMAN, 1910), *Entomologist* 43 : 221, was erroneously associated with *collitoides* by me, but its wings are much narrower than in *collitoides* and the male genitalia show it to be a member of *Eilema*.

Paraona staudingeri formasana OKANO

Paraona staudingeri formasana OKANO, 1960, *Annual Rep. Gakugei Fac. Iwate Univ.* 16 : 18, pl. 8 : 8.
Paraona benderi ROESLER, 1967, *Z. wien. ent. Ges.* 52 : 72, figs 8, 12 ; pl. 10 : 3, 4. Syn. nov.

As OKANO describes, the Taiwanese representative of *staudingeri* is dimorphic : one has the hindwing fuscous as in the nominate subspecies and the other has the hindwing white, but rarely intermediate form occurs. Although ROESLER considers *benderi* a good species, I cannot find any genitalic distinctions between the Japanese and Taiwanese specimens.

Cyana hamata hamata (WALKER)

Bizone hamata WALKER, 1854, *List lepid. Insects Colln Br. Mus.* 2 : 549.
Chionaema hamata var. *rectivitta* STRAND, [1917], *Arch. Naturgesch.* 82A (3) : 115. Syn. nov.
Chionaema hamata f. *rectivitta* : MATSUMURA, 1930, *Insecta matsum.* 5 : 81.
Bizone hamata : INOUE, 1982, *Moths of Japan* 1 : 644 ; 2 : 336, pl. 156 : 16, 17.

STRAND recorded from Taiwan one female as the normal form and two males as var. *rectivitta*, being characterized by nearly vertical antemedian fascia of forewing. However, the course of the antemedian line is variable and sometimes it is almost vertical in individuals from Taiwan and Japan in my collection.

Although, I, 1982, *loc. cit.*, resurrected *Bizone* WALKER, 1854, for the Japanese species formerly assigned to *Chionaema* HERRICH-SCHÄFFER, 1855, the genus *Cyana* Walker, 1854, should be given precedence, because the first revisor ROEPKE, 1946,

Tijdschr. Ent. 87 : 26, already treated *Bizone* and *Chionaema* junior synonyms of *Cyana*, as HAMPSON, 1894, had done.

Cyana propinqua (WILEMAN), **comb. nov.**
(Fig. 36)

Chionaema propinqua WILEMAN, 1910, *Entomologist* 43 : 177 ; HAMPSON, 1914, *Cat. Lepid. Phalaenae Br. Mus. Suppl.* 1 : 631, pl. 33 : 25 ; DRAUDT, 1914, in SEITZ, *Macrolepid. World* 10 : 174 ; MATSUMURA, 1930, *Insecta matsum.* 5 : 81 ; *id.*, 1931, 6000 *illustr. Insects Japan-Empire* : 950, fig. *Chionaema tristigmalis* STRAND, [1917], *Arch. Naturgesch.* 82A (3) : 120. Syn. nov.
Eurosia tristigmalis: MATSUMURA, 1930, *Insecta matsum.* 5 : 82.

WILEMAN founded his new species by a pair of specimens and STRAND described *tristigmalis* from a single male, both from Taiwan. The type-series were examined by me and the synonymy was confirmed.

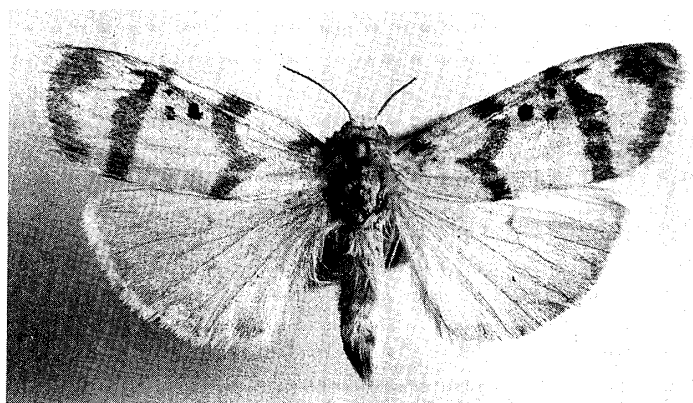


Fig. 36. *Cyana propinqua* (WILEMAN), holotype, ♂, of *Chionaema tristigmalis* STRAND.

Cyana formosana (HAMPSON), **comb. nov.**

Chionaema formosana HAMPSON, 1909, *Ann. Mag. nat. Hist.* (8) 4 : 355 ; *id.*, 1914, *Cat. Lepid. Phalaenae Br. Mus. Suppl.* 1 : 630 fig. 193 ; DRAUDT, 1914, in SEITZ, *Macrolepid. World* 10 : 169 ; MATSUMURA, 1930, *Insecta matsum.* 5 : 80 ; *id.*, 1931, 6000 *illustr. Insects Japan-Empire* : 950, fig. *Chionaema suisharyonis* STRAND, [1917], *Arch. Naturgesch.* 82A (3) : 119 ; MATSUMURA, 1930, *Insecta matsum.* 5 : 82. Syn. nov.

HAMPSON's new species was based on one male and three females and STRAND described his new species from a single female. All the specimens cited were examined by me.

Cyana effracta (WALKER), **comb. rev.**

Barsine effracta WALKER, 1854, *List lepid. Insects Colln Br. Mus.* **2** : 546.

Bizone effracta : KIRBY, 1892, *Cat. Lepid. Heterocera* **1** : 303.

Cyana effracta : HAMPSON, 1894, *Fauna Br. India, Moths* (2) : 57.

Chionaema effracta : HAMPSON, 1900, *Cat. Lepid. Phalaenae Br. Mus.* **2** : 300 ; DRAUDT, 1914, *in* SEITZ, *Macrolepid. World* **10** : 169, pl. 16 : g.

Chionaema pusilla WILEMAN, 1910, *Entomologist* **43** : 177.

Chionaema effracta f. *karenkonis* MATSUMURA, 1930, *Insecta matsum.* **5** : 36, pl. 1 : 14 ; *id.*, 1930, *op. cit.* **5** : 80 ; *id.*, 1931, *6000 illust. Insects Japan-Empire* : 950, fig. Syn. nov.

HAMPSON, 1914, *op. cit. Suppl.* **1** : 617, already sunk *pusilla* into *effracta*. I have compared Taiwanese specimens with Indian *effracta* and found no essential differences between them.

Siccia sordida (BUTLER)

(Figs. 37, 38)

Aemene sordida BUTLER, 1877, *Trans. ent. Soc. Lond.* **1877** : 372.

Aemene modesta MOORE, 1878, *Proc. zool. Soc. Lond.* **1878** : 34.

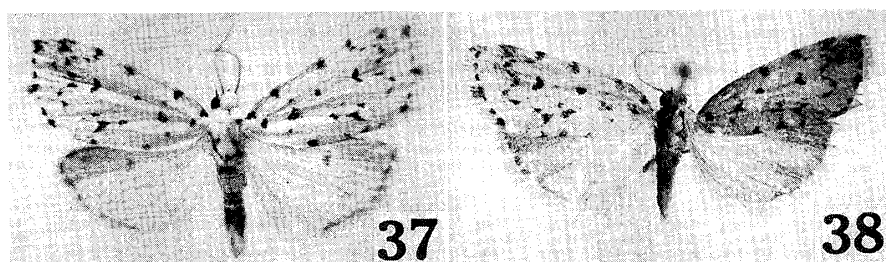
Aemene taprobanis (part.) : HAMPSON, 1984, *Fauna Br. India, Moths* (2) : 92.

Siccia sordida: HAMPSON, 1900, *Cat. Lepid. Phalaenae Br. Mus.* **2** : 396 ; SEITZ, 1910, *Macrolepid. World* **2** : 53 ; DRAUDT, 1914, *in* SEITZ, *Macrolepid. World* **10** : 162.

Siccia baibarensis MATSUMURA, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.* **19** : 62, pl. 5 : 19 ; *id.*, 1930, *Insecta matsum.* **5** : 82. Syn. nov.

Siccia baibarana (!) : MATSUMURA, 1931, *6000 illust. Insects Japan-Empire* : 981, fig.

This species has been known from India to Taiwan, but in my collection there is a female secured at Komi, Iriomotejima, Ryukyu, 24–26. x. 1973 (M. OWADA). If Taiwanese representative is to be separated as a race, *modesta* should be restored. I have omitted *Aemene subcinerea* MOORE, 1878 (NW. India) and *A. quinquefascia* HAMPSON, 1981 (Nilgiri District), which were treated by HAMPSON, 1900, as subspecies, from synonym list of this widespread species, because I am not confident about conspecificity of the two taxa with *sordida*. *S. baibarensis* of DANIEL, 1951, *Bonn. zool.*



Figs. 37–38. 37 : *Siccia sordida* (BUTLER), ♂. 38 : *Ditto*, holotype, ♂, of *Siccia baibarensis* MATSUMURA.

Beitr. 2 : 303, pl. 1 : 9, from continental China is probably a misidentification of a different species.

Siccia WALKER, type-species : *S. caffra* WALKER from South Africa, is an assemblage of far remote species, but at present it is impossible for me to subdivide the genus into several genera.

Miltochrista calamina BUTLER, **sp. rev.**

Miltochrista calamina BUTLER, 1877, *Ann. Mag. nat. Hist.* (4) 20 : 396.

Miltochrista pallida : INOUE, 1982, *Moths of Japan* 1 : 648 ; 2 : 377, pl. 157 : 21–23, *nec* BREMER.

Although I cannot find any genitalic differences between *calamina* from Japan and *pallida* from Southeast Siberia and Korea, they should be treated as distinct species, because their differences of wing colour and maculation are striking, without gradient specimens connecting them. Specimens of *calamina* from eastern Hokkaido are much paler than the typical mainland specimens, but they have transverse lines, at least postmedian, of forewing, while in *pallida* only subterminal row of spots are developed.

Miltochrista convexa WILEMAN

(Fig. 39)

Miltochrista convexa WILEMAN, 1910, *Entomologist* 43 : 223 ; DRAUDT, 1914, in SEITZ, *Macrolepid. World* 10 : 137 ; HAMPSON, 1914, *Cat. Lepid. Phalaenae Br. Mus. Suppl.* 1 : 782, pl. 40 : 34 ; MATSUMURA, 1930, *Insecta matsum.* 5 : 86.

Asura cruciata MATSUMURA, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.* 19 : 70, pl. 5 : 3 ; *id.*, 1930, *Insecta matsum.* 5 : 85 ; *id.*, 1931, 6000 *illust. Insects Japan-Empire* : 947, fig. *Syn. nov.*

WILEMAN founded his species by a pair of specimens from Kanshirei and MATSUMURA by a single male from Horisha. I was able to examine the type-series of the two taxa and found that they are the same.

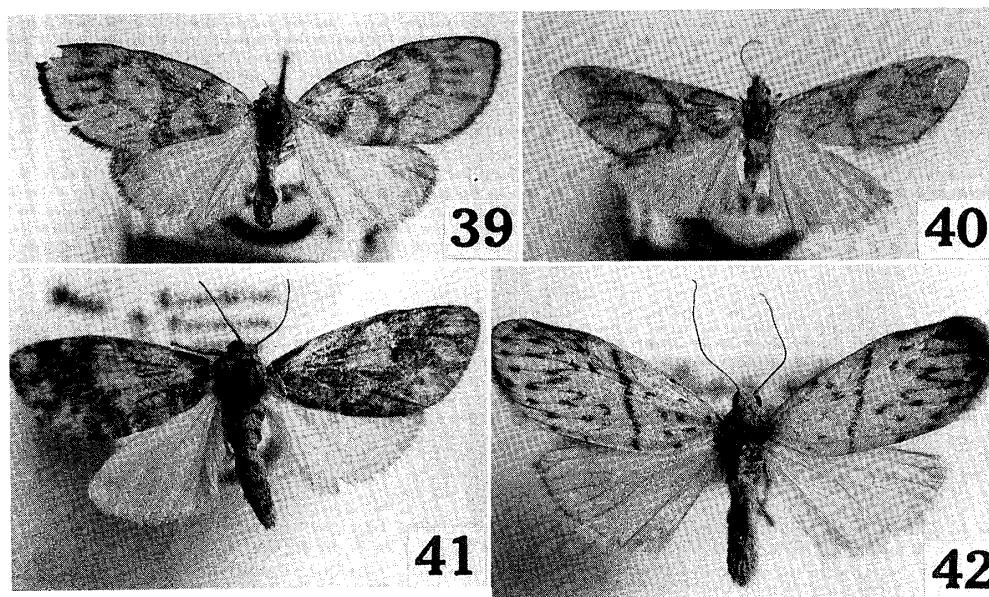
Asura connexa (WILEMAN), **comb. nov.**

(Fig. 40)

Miltochrista connexa WILEMAN, 1910, *Entomologist* 43 : 223 ; DRAUDT, 1914, in SEITZ, *Macrolepid. World* 10 : 137 ; HAMPSON, 1914, *Cat. Lepid. Phalaenae Br. Mus. Suppl.* 1 : 782, pl. 40 : 35.

Asura horishanella MATSUMURA, 1927, *J. Coll. Agric. Hokkaido Imp. Univ.* 19 : 69, pl. 5 : 2 ; *id.*, 1930, *Insecta matsum.* 5 : 85 ; *id.*, 1931, 6000 *illust. Insects Japan-Empire* : 947, fig. *Syn. nov.*

WILEMAN described his new species based on a single male from Arizan and MATSUMURA on two males and one female from Horisha. All the type specimens were examined by me and the synonymy was confirmed.



Figs. 39–42. 39 : *Miltochrista convexa* WILEMAN, syntype, ♀. 40 : *Asura connexa* (WILEMAN), holotype, ♂. 41 : *Asura tricolor* (WILEMAN), holotype, ♂. 42 : *Asura alikangiae* STRAND, syntype, ♀.

Asura tricolor (WILEMAN)
(Fig. 41)

Miltochrista tricolor WILEMAN, 1910, *Entomologist* 43 : 244 ; Draudt, 1914, in SEITZ, *Macrolepid. World* 10 : 137.

Asura tricolor : HAMPSON, 1914, *Cat. Lepid. Phalaenae Br. Mus. Suppl.* 1 : 768, pl. 40 : 11 ; MATSUMURA, 1930, *Insecta matsum.* 5 : 86 ; *id.*, 1931, *600 illust. Insects Japan-Empire* : 947, fig. *Asura magica* STRAND, [1917], *Arch. Naturgesch.* 82A (3) : 124. Syn. nov.

The holotype, ♂, of *tricolor* from Kanshirei and that of *magica*, ♀, from Kosempo are perfectly identical, though the latter specimen is rather worn.

Asura alikangiae STRAND, **stat. nov.**
(Fig. 42)

Asura obsoleta f. (?) *alikangiae* STRAND, [1917], *Arch. Natugesch.* 82A (3) : 124.
Asura obsoleta f. *alikangiae* : MATSUMURA, 1930, *Ins. matsum.* 5 : 85.

I have not had a chance to examine the holotype, ♀, of *Lyclene obsoleta* MOORE, 1878, from Darjeeling, but from the original description and HAMPSON's redescription, 1900, *op. cit.* 2 : 441, and DRAUDT's illustration, 1914, *op. cit.* 10 : 146, pl. 17 : e, I believe that *alikangiae* is specifically distinct from *obsoleta*. MATSUMURA's figure, 1931, *op. cit.* : 947, of *obsoleta* seems to be a copy of DRAUDT's.

This species is very common in Taiwan.

Asura alikangiae intermedia MARUMO, **stat. nov.**

Asura intermedia MARUMO, 1923, *J. Coll. Agric. Imp. Univ. Tokyo* 8 : 138, pl. 3 : 2 ; DRAUDT, 1931, in SEITZ, *Macrolepid. World* 2, *Suppl.* : 66 ; YAMAMOTO, 1959, in *Icon. Ins. Jap. col. nat. Ed.* 1 : 100, pl. 60 : 12 ; INOUE, 1982, *Moths of Japan* 1 : 647 ; 2 : 337, pl. 156 : 50, 51.

Specimens from southwestern part of Japan (Yakushima, Amami-Oshima, Okinawa) are smaller and markings of forewing less clear, antemedian line much weaker, obsolete or entirely vanished, though the genitalia of both sexes are almost identical with those of the nominate subspecies.

Parasiccia maculata (POUJADE)

(Figs. 43, 44)

Nudaria maculata POUJADE, 1886, *Bull. Soc. ent. Fr.* (6) 6 : cl ; KIRBY, 1892, *Cat. Lepid. Heterocera* 1 : 361.

Parasiccia maculata : HAMPSON, 1900, *Cat. Lepid. Phalaenae Br. Mus.* 2 : 408, pl. 29 : 24 ; SEITZ, *Macrolepid. World* 2 : 54, pl. 11 : c.

Asura limbata WILEMAN, 1911, *Entomologist* 64 : 110. Syn. nov.

Asura pica WILEMAN, 1911, *Entomologist* 64 : 111. Syn. nov.

Mittochrista limbata : HAMPSON, 1914, *Cat. Lepid. Phalaenae Br. Mus. Suppl.* 2 : 785, pl. 41 : 6.

Mittochrista pica : HAMPSON, 1914, *op. cit.* : 785, pl. 41 : 7.

Parasiccia maculata var. *formosibia* STRAND, [1917], *Arch. Natugesch.* 82A (3) : 123. Syn. nov.

Parasiccia maculata f. *shirakii* MATSUMURA, 1930, *Insecta matsum.* 5 : 39 ; *id.*, 1930, *Insecta matsum.* 5 : 83. Syn. nov.

Parasiccia maculata f. *formosibia* : MATSUMURA, 1930, *Insecta matsum.* 5 : 84 ; *id.*, 1931, *6000 illust. Insects Japan-Empire* : 977, fig.

All the WILEMAN's and STRAND's type-series were examined and synonymy was confirmed by me. *A. pica* is a dark individual of *maculata* (= *limbata*) as was suggested by HAMPSON, 1914.



Figs. 43-44. 43 : *Parasiccia maculata* (POUJADE), holotype, ♂, of *Asura limbata* WILEMAN. 44 : *Ditto*, holotype, ♀, of *Asura pica* WILEMAN.

Neoblavia scoteola HAMPSON

(Figs. 45, 46)

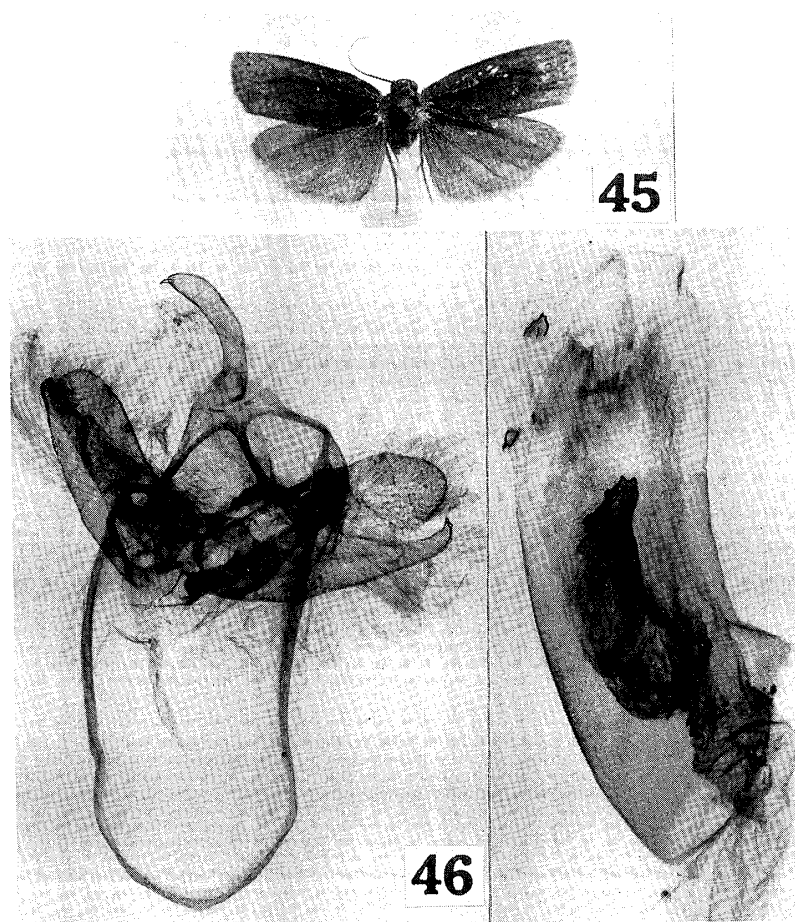
Neoblavia scoteola HAMPSON, 1900, *Cat. Lepid. Phalaenae Br. Mus.* 2 : 105, fig.45 ; DRAUDT, 1914, in SEITZ, *Macrolepid. World* 10 : 219, pl. 14 : c.

The genitalia of the unique type specimen, ♂, from Sikkim in coll. British Museum (N.H.) were compared with those of Taiwan and found that they are perfectly identical. This little known species is new to the fauna of Taiwan.

Specimens examined. Nanshanchi, Nantou Hsien, 25 – 26. vii. 1983, 5♂ ; Lushan Spa, 1200 m, Nantou Hsien, 27 – 28. vii. 1983, 4♂ (A. KAWABE).

Schistophleps bipuncta HAMPSON

Schistophleps bipuncta HAMPSON, 1891, *Illust. typical Specimens Lepid. Heterocera Colln Br. Mus.* 8 : 54, pl. 140 : 23 ; KIRBY, 1892, *Cat. Lepid. Heterocera* 1 : 366 ; HAMPSON, 1894, *Fauna Br. India, Moths* (2) : 125, fig. 80 ; SEITZ, 1914, *Macrolepid. World* 10 : 129, pl. 18 : h ; INOUE, 1982, *Moths of Japan* 1 : 650 ; 2 : 338, pl. 157 : 50, 51 ; pl. 348 : 9, 10.



Figs. 45 – 46. 45 : *Neoblavia scoteola* HAMPSON, ♂, from Taiwan. 46 : *Ditto*, ♂ genitalia of holotype, aedeagus greatly magnified (BMNH).

Schistophleps bipuncta var. *postmedialis* STRAND, [1917], *Arch. Naturgesch.* **82A** (3) : 128. Syn. nov.
Schistophleps bipuncta f. *postmedialis* MATSUMURA, 1930, *Insecta matsum.* **5** : 88.

The holotype of *postmedialis* is the normal female secured at Kosempo. It is impossible for me to separate Taiwanese as well as Japanese populations from that of India.

摘 要

日本及び台湾産ヒトリガ科の3新種の記載とシノニム関係の学名整理 (井上 寛)

本文で次の3新種を記載した。

Spilarctia graminivora INOUE セスジヒトリ

このヒトリガの日本における再発見ということで, *Spilosoma bisecta* LEECH という学名で著者 (1981, 昆虫と自然 **16** (13) : 30-31) が報告し, 翌年 (1982, 蛾類大図鑑 **1** : 651 ; **2** : 339, pl. 228 : 4) 図説したが, 中国大陸の *bisecta* とくらべると, 日本産は外観でも雄交尾器の形態でも異なるので, 表記のような新種とした。LEECH が *bisecta* の原記載で長崎 (♂) とした標本は明らかに中国大陸産の間違いである。本種は近畿以西, 四国, 九州の平地に分布し, 幼生期については, 寺本 (1984, 蛾類通信 **127** : 17-22) によって報告されている。

Asuridia rubripennis INOUE

中国大陸と日本 (対島) の *A. carnipicta* (BUTLER) スジマガリベニコケガは, 著者 (1978, 蛾類通信 **97** : 605) が報告したが, 当時疑問を残したまま同種として記録した台湾産を表記のような新種とした。

Miltochrista expressa INOUE サキシマベニコケガ (新称)

著者 (1982, 蛾類大図鑑 **1** : 648) は, 石垣島と西表島の本種を *M. aberrans okinawana* MATSUMURA ハガタベニコケガの沖縄亜種に含めたが, ゲニタリアに明確な差異があるので, 新種とした。ハガタベニコケガの南限は, 今のところ沖縄本島で, 本種と分布が重なっていない。

後半では主に台湾産の学名の整理をしたが, 日本産に関係のある事項は次の通りである。

Agylla collitoides (BUTLER) キマエクロホソバ

本種の台湾亜種を *taiwana* (WILEMAN) として著者が引用したのは誤同定で (1982, 蛾類大図鑑 **1** : 643), *subpurpurea* MATSUMURA が正しい。

Siccia sordida (BUTLER) パイバラホシコケガ

学名の整理をすると共に, 西表島の♂を日本からはじめて記録した。台湾の *S. baibarensis* MATSUMURA パイバラホシホソバをシノニムとしたので, 和名はパイバラホシコケガと語尾を改めて使ったらよからう。

著者 (1982, 蛾類大図鑑 **1** : 644 ; **2** : 336) は *Chionaema* HERRICH-SCHÄFFER, 1855 を *Bizone* WALKER, 1854 のシノニムとしたが, ROEPKE, 1946 が *Bizone* と同時に発表された *Cyana* Walker, 1854 を生かし, *Bizone* と *Chionaema* を異名としたので, この処置に従って *Cyana* を採用することにした。

Miltochrista calamina BUTLER ハガタキコケガ

沿海州や朝鮮半島の *M. pallida* (BREMER) と同種としたが (1982, 蛾類大図鑑 **1** : 648 ; **2** : 337), 日本の *calamina* は大陸の *pallida* と外観上明確に区別できるので, *calamina* を復活させることにした。

Asura alikangiae intermedia MARUMO ヤクシマコケガ

台湾の *A. alikangiae* STRAND [タイワンキマダラコケガ] と亜種的な関係にあるものと思う。雌雄交尾器はほぼ一致するが, 大きさや斑紋の発達の程度に若干の相異がある。